RAW SEQUENCE LISTING

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Application Serial Number: _____ 10/555,544 _____

Source: _____ JFWP _____

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RAW SEQUENCE LISTING   DATE: 11/01/2006
PATENT APPLICATION: US/10/555,544   TIME: 11:06:12

Input Set : **A:\SAEG129.016APCSequence Listing.txt**
Output Set: **N:\CRF4\11012006\J555544.raw**

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   3 <110> APPLICANT: Ohmiya, Yoshihiro
   4        Nakajima, Yoshihiro
   6 <120> TITLE OF INVENTION: Multiple gene transcription activity assay system
   8 <130> FILE REFERENCE: SAEG129.016APC
  10 <140> CURRENT APPLICATION NUMBER: 10/555,544
C-->  11 <141> CURRENT FILING DATE: 2005-11-04
  13 <150> PRIOR APPLICATION NUMBER: JP2003-127629
  14 <151> PRIOR FILING DATE: 2003-05-06
  16 <150> PRIOR APPLICATION NUMBER: JP2003-407564
  17 <151> PRIOR FILING DATE: 2003-12-05
  19 <160> NUMBER OF SEQ ID NOS: 65
  21 <170> SOFTWARE: PatentIn version 3.1
  23 <210> SEQ ID NO: 1
  24 <211> LENGTH: 1638
  25 <212> TYPE: DNA
  26 <213> ORGANISM: Wild Type Phrixothrix Green Luciferase
  28 <400> SEQUENCE: 1
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  31 gcaggacaac aattatacca atcattgtat aaatttgcat cttttcctga agcaataatc     120
  33 gatgctcata caaatgaagt aatatcatat gctcaaatat ttgaaaccag ctgccgctta     180
  35 gctgttagta tagaacaata tggcttgaat gaaaacaatg ttgtgggtgt atgcagtgaa     240
  37 aacaatataa acttttttaa tcctgtcctt gctgctttat acttaggaat accagtagca     300
  39 acatcaaatg atatgtacac agatggagag ttaactggtc atttgaatat atcaaaacca     360
  41 actatcatgt ttagttcaaa gaaagcactc ccgcttattc tgagagtaca gcaaaatcta     420
  43 agtttcatta aaaaagtcgt agttatcgat agcatgtacg acattaatgg cgttgaatgc     480
  45 gtatctacct ttgttgcacg ttatactgac cacacctttg atccattgtc atttacacca     540
  47 aaagattttg atccccttga aaaaatcgca ttaattatgt catcatctgg aacaactgga     600
  49 ttgcctaagg gtgtagtact gagccataga agtctaacta taagattcgt tcatagcagg     660
  51 gatcccattt atggcactcg tacggttcca caaacatcaa ttctttcctt agtaccgttc     720
  53 catcatgcct ttggaatgtt tactacatta tcttactttg tagtaggact taaggttgta     780
  55 atgttgaaga aatttgaggg cgcactttтc ttaaaaacca tacagaatta caaaatcccc     840
  57 actattgtag tggcccctcc agttatggtg tttttggcta aaagcccatt agtcgatcaa     900
  59 tacgatttat cgagcttaac ggaagttgct actggaggag ctcctttagg aaaagatgtc     960
  61 gcagaagcag tagcaaagag gttgaaatta cctggaatca tacaaggata tggattaact    1020
  63 gaaacttgct gcgctgtaat gattacccct cataatgctg tgaaaacagg ttcaactgga    1080
  65 agacccttgc catacattaa agctaaagtt ttagataacg ctactgggaa ggcgctagga    1140
  67 ccaggagaaa gaggcgaaat atgctttaaa agtgaaatga ttatgaaagg atattacaac    1200
  69 aatccggaag caactattga tactattgac aaagatggtt ggcttcattc tggagatatt    1260
  71 ggatattacg acgaagatgg aaatttcttt atagttgatc gattgaaaga acttattaaa    1320
  73 tacaagggat atcaggttgc gcctgctgaa ctggaaaatc tgcttttaca acatccaagt    1380
  75 attgctgatg cgggtgttac tggagttccg gacgaatttg ctggacaatt acctgctgct    1440
  77 tgtgttgtgt tagaatctgg caagacgctg actgaaaagg aagttcaaga ttttattgca    1500
  79 gcacaagtca ctccaacaaa gcatcttcga ggcggtgtcg tatttgtaga cagtattccg    1560
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88 <212> TYPE: PRT
89 <213> ORGANISM: Wild Type Phrixothrix Green Luciferase
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98           20                  25                  30
101 Ala Ser Phe Pro Glu Ala Ile Ile Asp Ala His Thr Asn Glu Val Ile
102           35                  40                  45
105 Ser Tyr Ala Gln Ile Phe Glu Thr Ser Cys Arg Leu Ala Val Ser Ile
106           50                  55                  60
109 Glu Gln Tyr Gly Leu Asn Glu Asn Asn Val Val Gly Val Cys Ser Glu
110 65                  70                  75                  80
113 Asn Asn Ile Asn Phe Phe Asn Pro Val Leu Ala Ala Leu Tyr Leu Gly
114                 85                  90                  95
117 Ile Pro Val Ala Thr Ser Asn Asp Met Tyr Thr Asp Gly Glu Leu Thr
118           100                 105                 110
121 Gly His Leu Asn Ile Ser Lys Pro Thr Ile Met Phe Ser Ser Lys Lys
122           115                 120                 125
125 Ala Leu Pro Leu Ile Leu Arg Val Gln Gln Asn Leu Ser Phe Ile Lys
126           130                 135                 140
129 Lys Val Val Val Ile Asp Ser Met Tyr Asp Ile Asn Gly Val Glu Cys
130 145                 150                 155                 160
133 Val Ser Thr Phe Val Ala Arg Tyr Thr Asp His Thr Phe Asp Pro Leu
134                 165                 170                 175
137 Ser Phe Thr Pro Lys Asp Phe Asp Pro Leu Glu Lys Ile Ala Leu Ile
138           180                 185                 190
141 Met Ser Ser Ser Gly Thr Thr Gly Leu Pro Lys Gly Val Val Leu Ser
142           195                 200                 205
145 His Arg Ser Leu Thr Ile Arg Phe Val His Ser Arg Asp Pro Ile Tyr
146           210                 215                 220
149 Gly Thr Arg Thr Val Pro Gln Thr Ser Ile Leu Ser Leu Val Pro Phe
150 225                 230                 235                 240
153 His His Ala Phe Gly Met Phe Thr Thr Leu Ser Tyr Phe Val Val Gly
154                 245                 250                 255
157 Leu Lys Val Val Met Leu Lys Lys Phe Glu Gly Ala Leu Phe Leu Lys
158           260                 265                 270
161 Thr Ile Gln Asn Tyr Lys Ile Pro Thr Ile Val Val Ala Pro Pro Val
162           275                 280                 285
165 Met Val Phe Leu Ala Lys Ser Pro Leu Val Asp Gln Tyr Asp Leu Ser
166           290                 295                 300
169 Ser Leu Thr Glu Val Ala Thr Gly Gly Ala Pro Leu Gly Lys Asp Val
170 305                 310                 315                 320
173 Ala Glu Ala Val Ala Lys Arg Leu Lys Leu Pro Gly Ile Ile Gln Gly
174           325                 330                 335
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177 Tyr Gly Leu Thr Glu Thr Cys Cys Ala Val Met Ile Thr Pro His Asn
178             340             345             350
181 Ala Val Lys Thr Gly Ser Thr Gly Arg Pro Leu Pro Tyr Ile Lys Ala
182         355             360             365
185 Lys Val Leu Asp Asn Ala Thr Gly Lys Ala Leu Gly Pro Gly Glu Arg
186         370             375         380
189 Gly Glu Ile Cys Phe Lys Ser Glu Met Ile Met Lys Gly Tyr Tyr Asn
190 385             390             395             400
193 Asn Pro Glu Ala Thr Ile Asp Thr Ile Asp Lys Asp Gly Trp Leu His
194             405             410             415
197 Ser Gly Asp Ile Gly Tyr Tyr Asp Glu Asp Gly Asn Phe Phe Ile Val
198             420             425             430
201 Asp Arg Leu Lys Glu Leu Ile Lys Tyr Lys Gly Tyr Gln Val Ala Pro
202         435             440             445
205 Ala Glu Leu Glu Asn Leu Leu Leu Gln His Pro Ser Ile Ala Asp Ala
206         450             455             460
209 Gly Val Thr Gly Val Pro Asp Glu Phe Ala Gly Gln Leu Pro Ala Ala
210 465             470             475             480
213 Cys Val Val Leu Glu Ser Gly Lys Thr Leu Thr Glu Lys Glu Val Gln
214             485             490             495
217 Asp Phe Ile Ala Ala Gln Val Thr Pro Thr Lys His Leu Arg Gly Gly
218             500             505             510
221 Val Val Phe Val Asp Ser Ile Pro Lys Gly Pro Thr Gly Lys Leu Ile
222         515             520             525
225 Arg Lys Glu Leu Arg Glu Ile Phe Ala Gln Arg Ala Pro Lys Ser Lys
226         530             535             540
229 Leu
230 545
233 <210> SEQ ID NO: 3
234 <211> LENGTH: 1641
235 <212> TYPE: DNA
236 <213> ORGANISM: Wild Type Phrixothrix Red Luciferase
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241 gcaggactac aattatatca atcattatat aaatattcat atattactga cggaataatc     120
243 gatgcccata ccaatgaagt aatatcatat gctcaaatat ttgaaaccag ctgccgcttg     180
245 gcagttagtc tagaaaaata tggcttggat cataacaatg ttgtggcaat atgcagtgaa     240
247 aacaacatac acttttttgg ccctttaatt gctgctttat accaaggaat accaatggca     300
249 acatcaaatg atatgtacac agaaagggag atgattggcc atttgaatat atcgaaacca     360
251 tgccttatgt tttgttcaaa gaaatcactc ccatttattc tgaaagtaca aaaacatcta     420
253 gatttcctta aaaaagtcat agtcattgat agtatgtacg atatcaatgg cgttgaatgc     480
255 gtatttagct ttgtttcacg ttatactgat cacgcctttg atccagtgaa atttaaccca     540
257 aaagagtttg atcccttgga aagaaccgca ttaattatga catcatctgg aacaactgga     600
259 ttgcctaaag gggtagtaat aagccataga agtataacta taagattcgt ccatagcagt     660
261 gatcccatct atggtactcg tattgctcca gatacatcaa ttcttgctat agcaccgttc     720
263 catcatgcct tggactgtt tactgcacta gcttactttc cagtaggact taagattgta     780
265 atggtgaaga aatttgaggg cgaattcttc ttaaaaacca tacaaaatta caaaatcgct     840
267 tctattgtag ttcctcctcc aattatggta tatttggcta aaagtccatt agtcgatgaa     900
269 tacaatttat cgagcttaac ggaaattgct tgtggagggt ctcctttagg aagagatatc     960
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271 gcagataaag tagcaaagag attgaaagta catggaatcc tacaaggata tggattaacc 1020
273 gaaacctgca gcgctctaat acttagcccc aatgatcgag aacttaaaaa aggtgcaatt 1080
275 ggaacgccta tgccatatgt tcaagttaaa gttatagata tcaatactgg gaaggcgcta 1140
277 ggaccaagag aaaaaggcga aatatgcttc aaaagtcaaa tgcttatgaa aggatatcac 1200
279 aacaatccgc aagcaactcg tgatgctctt gacaaagatg gttggcttca tactggggat 1260
281 cttggatatt acgacgaaga cagatttatc tatgtagttg atcgattgaa agaacttatt 1320
283 aaatataaag gatatcaggt tgcgcctgct gaactggaaa atctgctttt acaacatcca 1380
285 aatatttctg atgcgggtgt tattggaatt ccggacgaat ttgctggtca attaccttcc 1440
287 gcgtgtgttg tgttagagcc tggtaagaca atgaccgaaa aggaagttca ggattatatt 1500
289 gcagagctag tcactacaac taaacatctt cgaggcggtg tcgtatttat agatagtatt 1560
291 ccaaaaggcc aacaggaaaa actcatgaga aacgaactcc gtgcaatatt tgcccgggaa 1620
293 caggcaaaat caaaattata a                                          1641
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296 <210> SEQ ID NO: 4
297 <211> LENGTH: 546
298 <212> TYPE: PRT
299 <213> ORGANISM: Wild Type Phrixothrix Red Luciferase
301 <400> SEQUENCE: 4

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307 Phe Pro Gly Thr Ala Gly Leu Gln Leu Tyr Gln Ser Leu Tyr Lys Tyr
308             20                  25                  30
311 Ser Tyr Ile Thr Asp Gly Ile Ile Asp Ala His Thr Asn Glu Val Ile
312         35                  40                  45
315 Ser Tyr Ala Gln Ile Phe Glu Thr Ser Cys Arg Leu Ala Val Ser Leu
316     50                  55                  60
319 Glu Lys Tyr Gly Leu Asp His Asn Asn Val Val Ala Ile Cys Ser Glu
320 65              70                  75                  80
323 Asn Asn Ile His Phe Phe Gly Pro Leu Ile Ala Ala Leu Tyr Gln Gly
324             85                  90                  95
327 Ile Pro Met Ala Thr Ser Asn Asp Met Tyr Thr Glu Arg Glu Met Ile
328             100                 105                 110
331 Gly His Leu Asn Ile Ser Lys Pro Cys Leu Met Phe Cys Ser Lys Lys
332         115                 120                 125
335 Ser Leu Pro Phe Ile Leu Lys Val Gln Lys His Leu Asp Phe Leu Lys
336     130                 135                 140
339 Lys Val Ile Val Ile Asp Ser Met Tyr Asp Ile Asn Gly Val Glu Cys
340 145                 150                 155                 160
343 Val Phe Ser Phe Val Ser Arg Tyr Thr Asp His Ala Phe Asp Pro Val
344             165                 170                 175
347 Lys Phe Asn Pro Lys Glu Phe Asp Pro Leu Glu Arg Thr Ala Leu Ile
348             180                 185                 190
351 Met Thr Ser Ser Gly Thr Thr Gly Leu Pro Lys Gly Val Val Ile Ser
352         195                 200                 205
355 His Arg Ser Ile Thr Ile Arg Phe Val His Ser Ser Asp Pro Ile Tyr
356     210                 215                 220
359 Gly Thr Arg Ile Ala Pro Asp Thr Ser Ile Leu Ala Ile Ala Pro Phe
360 225                 230                 235                 240
363 His His Ala Phe Gly Leu Phe Thr Ala Leu Ala Tyr Phe Pro Val Gly
364             245                 250                 255
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```
367 Leu Lys Ile Val Met Val Lys Lys Phe Glu Gly Glu Phe Phe Leu Lys
368             260             265             270
371 Thr Ile Gln Asn Tyr Lys Ile Ala Ser Ile Val Val Pro Pro Pro Ile
372         275             280             285
375 Met Val Tyr Leu Ala Lys Ser Pro Leu Val Asp Glu Tyr Asn Leu Ser
376     290             295  ·          300
379 Ser Leu Thr Glu Ile Ala Cys Gly Gly Ser Pro Leu Gly Arg Asp Ile
380 305             310             315                 320
383 Ala Asp Lys Val Ala Lys Arg Leu Lys Val His Gly Ile Leu Gln Gly
384             325             330             335
387 Tyr Gly Leu Thr Glu Thr Cys Ser Ala Leu Ile Leu Ser Pro Asn Asp
388             340             345             350
391 Arg Glu Leu Lys Lys Gly Ala Ile Gly Thr Pro Met Pro Tyr Val Gln
392         355             360             365
395 Val Lys Val Ile Asp Ile Asn Thr Gly Lys Ala Leu Gly Pro Arg Glu
396     370             375             380
399 Lys Gly Glu Ile Cys Phe Lys Ser Gln Met Leu Met Lys Gly Tyr His
400 385             390             395             400
403 Asn Asn Pro Gln Ala Thr Arg Asp Ala Leu Asp Lys Asp Gly Trp Leu
404             405             410             415
407 His Thr Gly Asp Leu Gly Tyr Tyr Asp Glu Asp Arg Phe Ile Tyr Val
408             420             425             430
411 Val Asp Arg Leu Lys Glu Leu Ile Lys Tyr Lys Gly Tyr Gln Val Ala
412         435             440             445
415 Pro Ala Glu Leu Glu Asn Leu Leu Leu Gln His Pro Asn Ile Ser Asp
416     450             455             460
419 Ala Gly Val Ile Gly Ile Pro Asp Glu Phe Ala Gly Gln Leu Pro Ser
420 465             470             475             480
423 Ala Cys Val Val Leu Glu Pro Gly Lys Thr Met Thr Glu Lys Glu Val
424             485             490             495
427 Gln Asp Tyr Ile Ala Glu Leu Val Thr Thr Thr Lys His Leu Arg Gly
428         500             505             510
431 Gly Val Val Phe Ile Asp Ser Ile Pro Lys Gly Pro Thr Gly Lys Leu
432         515             520             525
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439 Lys Leu
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444 <211> LENGTH: 1760
445 <212> TYPE: DNA
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453 atcattatat aaatattcat atattactga cggaataatc gatgcccata ccaatgaagt     180
455 aaatatcatat gctcaaatat ttgaaaccag ctgccgcttg gcagttagtc tagaaaaata     240
457 tggcttggat cataacaatg ttgtggcaat atgcagtgaa aacaacatac acttttttgg     300
459 ccctttaatt gctgctttat accaaggaat accaatggca acatcaaatg atatgtacac     360
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VERIFICATION SUMMARY
PATENT APPLICATION: US/10/555,544

Input Set : **A:\SAEG129.016APCSequence Listing.txt**
Output Set: **N:\CRF4\11012006\J555544.raw**

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date